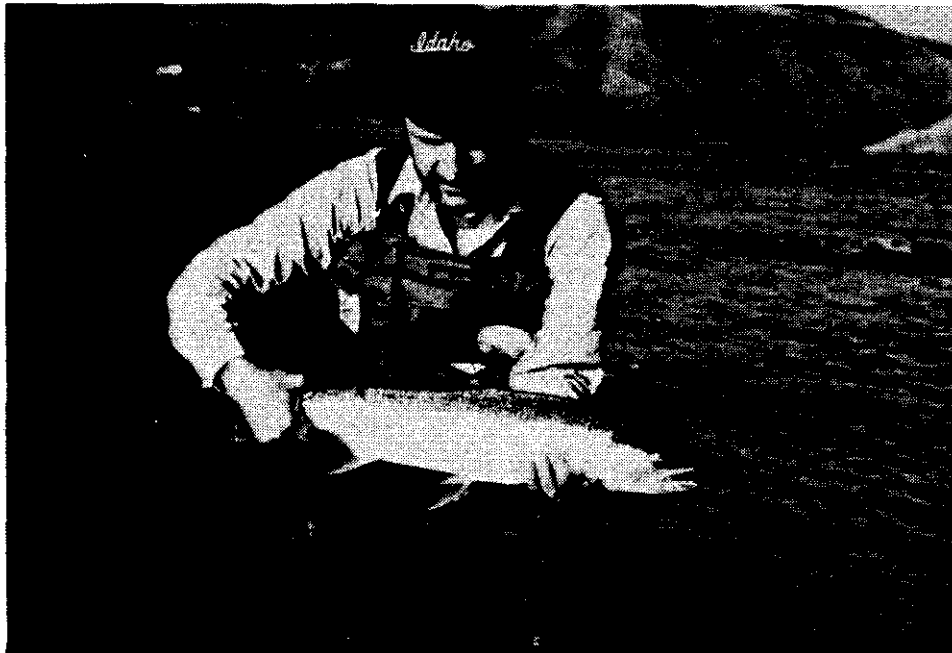


FISHERY RESEARCH



FEDERAL AID IN FISH RESTORATION

Job Performance Report, Project F-73-R-9
Subproject II: SALMON AND STEELHEAD INVESTIGATIONS
Study I: Estimates of the 1986 Harvest of Salmon and Steelhead



By

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March 1988

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JOB PERFORMANCE REPORT

State of: Idaho

Name: SALMON AND STEELHEAD INVESTIGATIONS

Project No.: F-73-R-9

Title: Estimates of the 1986 Harvest of
Salmon and Steelhead (Survey)

Job No.: 1

Period Covered: March 1, 1986 to February 28, 1987

ABSTRACT

A harvestable surplus of hatchery spring chinook salmon returned to Idaho in 1986, allowing for a limited reopening of the sport fishing season on the Little Salmon River, Panther Creek, and the lower Snake River. An estimated total of 3,696 anglers fished 13,038 days and harvested 3,836 spring chinook salmon. A total of 1,739 chinook were caught and released.

The total number of steelhead landed by anglers in 1986 reached an estimated 89,543 fish. Anglers kept 39,893 steelhead and released 49,650. Effort by steelhead anglers was 239,138 days. '

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OBJECTIVE

To obtain annual estimates of salmon and steelhead harvested by major drainages.

TECHNIQUES USED

Salmon Catch Survey

Because of the low number of salmon permit holders, an attempt was made to contact all permittees by telephone to obtain salmon catch information. The questions asked during the telephone interview are displayed in Figure 1.

Telephone interviewers were trained to solicit complete replies and read from a standard script so that all questions were asked of all interviewees in the same manner. Each telephone response was entered directly using DEF II on the Honeywell 698 minicomputer and processed by personal computers using dBase III+, Systat, and Lotus to produce estimates of total fishing effort and harvest.

Steelhead Catch Survey

In 1986, steelhead harvest and angler fishing efforts were estimated from a telephone survey as reported by Pollard (1985). However, in the spring, a random sample of 4,200 was obtained by computer from the license database file. This sample was stratified on the angler drainage preference area as reported on steelhead tag receipts, so that the estimates of areas in the Salmon River drainage would become precise. In contrast, the random sample selected by the computer from the license database for the fall survey was not stratified by angler preference, but the sample size was expanded to 16,892, so that subsamples could be made to determine optimal sample sizes.

Each survey consisted of a preliminary letter explaining the purpose of the study and the questions to be asked (Figure 2). The letter was followed within two weeks by a phone call. The telephone interviewers were trained to solicit complete replies and read from a standard script so that all questions were asked of the interviewees in the same manner.

Each completed telephone response or letter returned was immediately entered on DEF II. Then, data was processed by personal computer, using dBase III+, Systat and Lotus after a downloading from the minicomputer, to produce estimates of total fishing effort and harvest.

SCRIPT FOR TELEPHONE INTERVIEW OF IDAHO SALMON FISHERMAN

INTRODUCTION

HELLO, IS THIS THE RESIDENCE OF _____?
FIRST AND LAST NAME

IF YES, IF NO, THE NUMBER I WAS CALLING IS _____
AND I AM TRYING TO CONTACT _____ SORRY
FIRST AND LAST NAME

I BOTHERED YOU. (TERMINATE: CHECK NAME AND NUMBER.)

THIS IS _____. I AM CALLING FOR THE
INTERVIEWER'S NAME

IDAHO DEPARTMENT OF FISH AND GAME. WE ARE DOING A SURVEY OF SALMON
FISHERMEN TO ESTIMATE THE HARVEST OF SALMON IN IDAHO DURING THE
1986 SEASON. _____ NAME WAS SELECTED FROM
FIRST AND LAST NAME

SALMON PERMITS PURCHASED THIS YEAR. IS HE/SHE THERE? MAY I SPEAK
TO HIM/HER.

1. RESPONDENT IF ON THE PHONE
2. RESPONDENT IS CALLED TO PHONE
3. NO.

WHEN MAY I CALL BACK TO REACH HIM/HER?
WOULD YOU TELL HIM/HER THAT I CALLED AND THAT I WILL CALL
BACK? THANK YOU.

THIS IS _____. I AM CALLING FOR THE
IDAHO DEPARTMENT OF FISH AND GAME. WE ARE DOING A SURVEY OF SALMON
FISHERMEN TO ESTIMATE THE HARVEST OF SALMON IN IDAHO DURING THE
1986 SEASON. YOUR NAME WAS SELECTED FROM SALMON PERMITS PURCHASED
THIS YEAR.

1. DID YOU FISH FOR SALMON IN IDAHO DURING THE 1986 SEASON?

NO- THANK YOU FOR YOUR HELP. THAT IS THE ONLY QUESTION I HAVE FOR
YOU.

YES.

2. HOW MANY DAYS DID YOU FISH IN EACH RIVER SECTION?
3. DID YOU CATCH ONE OR MORE SALMON (INCLUDING FISH RELEASED)?
4. IF YOU CAUGHT AND RELEASED SALMON, HOW MANY DID YOU RELEASE BY
RIVER SECTION?
5. IF YOU CAUGHT AND KEPT SALMON, HOW MANY DID YOU HARVEST, BY RIVER
SECTION AND MONTH.
6. WHAT WAS THE SIZE OF YOUR SALMON (LENGTH)? (JACKS: 20 INCHES OR
LESS)
7. WOULD YOU PLEASE RATE THE QUALITY OF YOUR SALMON FISHING EXPERIENCE
ON A SCALE OF 1 TO 5 WHERE:
1 IS EXCELLENT
2 IS GOOD
3 IS SATISFACTORY
4 IS POOR AND
5 IS UNSATISFACTORY

THAT IS ALL THE QUESTION I HAVE FOR YOU. THANK YOU FOR TAKING TIME TO
PROVIDE ANSWERS. YOUR RESPONSES WILL BE VERY VALUABLE TO US.
GOODBYE.

Figure 1. Questions asked during telephone interviews with salmon permit
buyers in harvest survey sample, 1986.



600 South Walnut • Box 25
Boise, Idaho 83707

January, 1987

We are seeking information regarding steelhead fishing in Idaho during the 1986 fall steelhead season (August 30 through December 31, 1986). Your assistance in answering the following questions will help the future of steelhead fishing. Please take a few minutes to fill in the answers to the questions below and place this letter near your telephone. PLEASE DO NOT RETURN THIS LETTER BY MAIL (unless you have no telephone). In the near future, you will receive a telephone call asking the following questions:

1. Did you fish for steelhead in Idaho during the 1986 fall season?

Yes _____ No _____

2. How many days did you fish in each river section? (See river section list on back of this sheet.)

Number of days fished	River	Section number
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. Did you catch one or more steelhead (including fish released)?

Yes _____ No _____

4. If you caught and released steelhead, how many did you release, by river section?

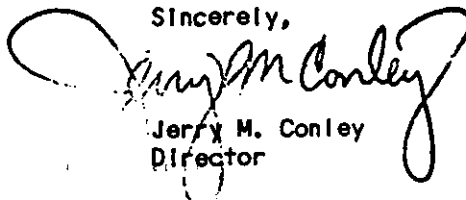
Number released		River	Section number
Hatchery fish	Wild fish		
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Figure 2. Preliminary letter sent to steelhead permit buyers in harvest survey sample, 1986.

5. If you caught and kept steelhead, how many did you harvest by date and river section? (Check dates recorded on your steelhead permit.)

	Date	River	Section number
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

Sincerely,


 Jerry M. Conley
 Director

River	Section number	River	Section number
Sneke River, below Salmon River.....	01	Salmon River, Vinegar Creek to South Fork.....	13
Sneke River, above Salmon River.....	02	Salmon River, South Fork to Middle Fork.....	14
Clearwater River, below Orofino Bridge.....	03	Salmon River, Middle Fork to North Fork.....	15
Clearwater River, above Orofino Bridge.....	04	Salmon River, North Fork to Lemhi River.....	16
North Fork Clearwater River.....	05	Salmon River, Lemhi River to Pahsimeroi River..	17
Middle Fork Clearwater River.....	06	Salmon River, Pahsimeroi River to East Fork....	18
South Fork Clearwater River.....	07	Salmon River, above the East Fork.....	19
Salmon River, below Whitebird Creek.....	10	Sneke River, Oxbow.....	27
Salmon River, Whitebird Creek to Little Salmon..	11	Boise River.....	28
Salmon River, Little Salmon to Vinegar Creek...	12		

(Figure 2. Continued)

FINDINGS

Salmon

The salmon limit (including jacks) was set at 2 fish/day, 4 in possession and 6/season (Figure 3).

A total of 4,674 permits were sold, with 2,835 (64%) permit holders contacted for the telephone survey. A total of 3,696 anglers (3351 residents and 345 nonresidents) fished for chinook in the three areas opened in 1986 and fished 13,038 days (Table 1). An estimated 1,434 permit holders, (1,289 residents and 145 nonresidents) caught 5,575 chinook salmon. Out of the 5,575 caught (93% adults and 7% jacks), 1,739 were released while 3,836 were harvested. The 1985 chinook salmon harvest was fifth lowest on record (Table 2).

The primary chinook salmon season was from May 24 to July 7, 1986, and was located on the Little Salmon River from the town of Riggins (main water pipeline) to the mouth of Rapid River. An estimated 2,458 anglers (2,287 residents and 171 nonresidents) fished for 9,355 days (Table 3). An estimated 4,346 spring chinook salmon were caught by 1,075 anglers (986 residents and 89 nonresidents), with 1,370 of these chinook being released, while an estimated 2,976 fish were harvested.

Two other chinook salmon fisheries were also available in 1986. The first was on the Snake River from Wild Sheep Rapids to Hells Canyon Dam, open from May 24 to August 29. Due to the limited access to this fishery, an estimated 40 anglers (26 nonresidents) fished for 132 days (Table 4). This was similar to the results reported in 1985 (Hall-Griswold and Cochnauer) when 21 anglers caught 36 chinook salmon; 10 were released and 26 were harvested.

A sport fishery during 1986 on Panther Creek, from the mouth of Clear Creek upstream to the mouth of Moyer Creek, was open from June 21 to August 13. The fishery was created by a surplus of chinook salmon returning to Pahsimeroi Hatchery. These chinook (3,384) were opercle punched, trucked to Beaver Creek Bridge on Panther Creek and released. After release 835 returned to the hatchery. An estimated 1,256 anglers (1,081 residents and 175 nonresidents) participated in this fishery for 3,551 days of effort (Table 5). A total of 1,193 chinook salmon were caught (359 released and 834 kept) by 389 anglers (323 residents and 66 nonresidents).

No anglers fished all three chinook salmon fisheries, but 46 fished both the Rapid River and the Panther Creek fisheries, 10 fished the Snake and Rapid River fisheries, and 2 anglers fished the Panther Creek and Snake River fisheries.

Satisfaction with their fishing experience was rated excellent by 24% of the anglers, 24% responded that it was good, 26% responded that it was satisfactory, while 10% respondents said the fishing experience was poor and 15% responded that it was unsatisfactory. Only 1% did not respond to this question. A high correlation was found between the rating of fishing experience and the number of chinook salmon caught using the Spearman Rank Correlation ($r=.86$).

IT IS UNLAWFUL

The following acts are unlawful by statute. They are listed here for your information. Please consult Title 36, Idaho Code, for exact wording and complete listing.

IT IS UNLAWFUL;

To refuse to produce license or fish for inspection upon request of a conservation officer.

To fail to stop and report at checking stations that have been established to inspect licenses and fish and game.

To fish for trout with the aid of artificial light.

To put any substance not attached to a hook into the water for the purpose of attracting fish (chumming).

To possess, transport or use as bait any live fish, EXCEPT as provided by Commission regulation.

To catch any part of another person's bag limit, EXCEPT, in the case of license-exempt persons fishing for salmon and steelhead.

To transport for another or accept as a gift any game fish unless a statement signed by taker accompanies the fish, showing the number and kinds, the date taken, the taker's name, address and fishing license number.

To claim ownership to more wild game or fish taken within the State of Idaho than allowed by established possession limits.

To ship any fish by commercial carrier unless the outside of the package is marked as to the number and kinds of fish and the package contains a written statement showing the taker's name, address and fishing license number.

To use seines, dip nets, spears, snag hooks, or any other contrivances in taking any fish from the waters of the State EXCEPT as allowed by Commission regulation.

To deposit chemicals, poisons or explosives in attempting to catch or destroy fish.

To waste game fish.

To sell fish without a permit.

Consult the General Fishing Regulations for other regulations relating to all fishing.



**IS YOUR SALMON
ADIPOSE-CLIPPED?
If it is ...
SAVE THE HEAD!!**



HERE'S WHY: The missing adipose fin signals the presence of a small coded-wire tag implanted in the nose of the fish. Each tag provides valuable information. If your fish is missing its adipose fin, remove the fish's head and return it to a local conservation officer or Fish and Game office (or freeze it until you can turn it in).

1986 IDAHO CHINOOK SALMON SEASONS & REGULATIONS.



Resident Fishing License	\$10.50
Nonresident Fishing License (Season).....	\$35.50
Salmon Permit (License Required).....	\$ 2.50

JERRY M. CONLEY, DIRECTOR
600 South Walnut St., Phone 334-3700
P.O. Box 25 Boise, Idaho 83707

Figure 3. Idaho 1986 chinook salmon seasons and regulations.

GENERAL INFORMATION

LICENSES, PERMITS - GENERAL

Everyone, except those expressly exempt, must have a valid fishing license and salmon permit to fish for salmon.

Any person who does not qualify as a resident must have a nonresident season fishing license before purchasing a salmon permit.

In order to qualify for resident status, a person must be domiciled in the State for at least six months.

Children (including nonresident children under the age of 14) are exempt from purchasing salmon permits. They may fish without permits if they are accompanied by a valid permit holder, provided that any fish caught must be recorded on the permit holder's card and counted in the permit holder's legal bag and possession limit. Any resident child under 14 may purchase a permit so that he may catch his or her own limit of salmon.

1986 IDAHO SALMON FISHING REGULATIONS

13.03.018.1 - 1986 Salmon Fishing Regulations

-AUTHORIZATION-


In accordance with Sections 36-104(b), 36-410, 36-901, Idaho Code, it is ordered that the following regulations for the taking of chinook salmon in the State of Idaho are hereby declared to be effective May 24, 1986, and until further notice.

CHINOOK SALMON - Anadromous (ocean run) salmon of the species Oncorhynchus tshawytscha in the Snake River drainage below Hells Canyon Dam, the Salmon River drainage and the Clearwater River drainage, excluding lakes and the North Fork of the Clearwater River above Dworshak Dam.

JACK SALMON - Chinook Salmon under 20 inches in total length are commonly called jack salmon.
SALMON FISHING PERMITS - Anglers fishing for or taking chinook salmon must have a salmon permit in possession. However, when a salmon is released unharmed, as in catch-and-release fishing, the angler is not required to make an entry on the permit.

SALMON PERMIT VALIDATION - When a chinook salmon has been hooked, landed and reduced to possession, the angler must immediately:

- Completely remove one numbered notch from the permit; and
- Look up the number code from the location code list and write it in the space provided; and
- Enter the month and day the fish was caught. For example, a chinook caught from the Little Salmon River on May 29 would entered as:

Fish	Month/Day	Location Code
	5/29	20

(Remove Notch)

SNAGGING - It is unlawful to kill or retain in possession any salmon which has been hooked other than in the head, and any salmon hooked other than in the head must be immediately released. Salmon caught in a legal manner must be either released or killed immediately after landing.

HOOK SIZE - It is unlawful to use any hook larger than 5/8 inch measured from the point of the hook to the shank.

SPECIAL REGULATIONS - It shall be unlawful to fish in any waters while having fish in possession which violate regulations for those waters.

FISHING PROHIBITED AFTER ATTAINMENT OF LIMITS - It is unlawful to continue to fish for salmon after a person has caught and reduced to possession the daily bag, possession or season limit.

POSSESSION AND OWNERSHIP - All fish that are hooked, landed, and not immediately released shall be counted in the limits of the person hooking the fish.

SEASONS AND LIMITS

The following waters are open to fishing for chinook salmon during the periods listed. Waters not specifically designated below shall remain CLOSED to fishing for chinook.

LITTLE SALMON RIVER - From the Riggins water main pipeline crossing the Little Salmon River approximately 200 yards above its mouth, upstream to the mouth of Rapid River - OPEN to fishing for chinook salmon from 4:00 a.m. (MDT) Saturday, May 24, 1986 until further notice. **TROUT AND WHITEFISH SEASON CLOSED** until July 16 (See General Fishing Regulations).

SNAKE RIVER - From Wild Sheep Rapids upstream to Hells Canyon Dam (approximately 6 miles) - OPEN to fishing for chinook salmon from May 24, 1986 until further notice.

FISHING HOURS - Fishing for salmon on the Little Salmon River is permitted only during the hours of 4 a.m. through 9:30 p.m. (MDT) during the open chinook salmon season.

SALMON LIMIT - 2 per day, 4 in possession, and 6 per season. Jack salmon must be counted in the daily, possession and season limit and recorded on the salmon permit.

NOTICE

Salmon permits will be sold at license vendors in Riggins, Grangeville, McCall, New Meadows, Weiser, Midvale and Cambridge, and at Fish and Game Department Offices in Lewiston, Boise and Garden City.

MAKE COURTESY CONTAGIOUS

- Respect Private and Public Property!
- Pack out your litter!
- Respect the rights of other anglers!

(Figure 3. Continued)

Table 1. Estimated angler participation and harvest in the Idaho chinook salmon fishery, 1986.

=====			
Total number of anglers:	4674		
Residents Sampled:	2593		
Non-residents sampled:	242		
Total sampled:	2835		
		UPPER	LOWER
	ESTIMATE	CONFIDENCE	CONFIDENCE
		INTERVAL	INTERVAL

Number that did fish:	3696	3775	3613
Resident:	3351	3400	3297
Non-resident:	345	398	295
Number that did not fish:	978	1060	898
Resident:	924	941	898
Non-resident:	54	78	35
Number of days fished:	13038	13648	12427
Resident:	12013	12611	11413
Non-resident:	1025	1131	920
Number anglers that caught:	1434	1521	1348
Resident:	1289	1320	1252
Non-resident:	145	181	113
Number that did not catch:	2262	2347	2175
Resident:	2063	2099	2020
Non-resident:	199	241	162
Number of fish released:	1739	2246	1233
Resident:	1556	2052	1060
Non-resident:	183	296	
Number of fish kept:	3836	4003	3670
Resident:	3470	3630	3311
Non-resident:	366	410	322

Table 2. Idaho salmon and steelhead harvest estimates, 1954-1986^a.

Year	Chinook salmon harvest estimate	Steelhead trout harvest estimate
1954	15,000	12,000
1955	19,000	13,000
1956	21,000	8,000
1957	39,000	20,000
1958	24,000	30,000
1959	20,000	31,000
1960	21,000	30,000
1961	13,000	25,000
1962	12,000	19,000
1963	12,000	26,000
1964	8,000	18,000
1965	Season Closed	20,000
1966	8,500	20,000
1967	6,500	22,500
1968	10,000	23,000
1969	11,500	15,500
1970	5,500	20,500
1971	3,500	17,500
1972	6,500	13,500
1973	9,500	10,500
1974	1,500	3,000
1975	Season Closed	Season Closed
1976	Season Closed	2,000
1977	3,500	13,000
1978	7,000	11,500
1979	Season Closed	5,500
1980	Season Closed	9,000
1981	Season Closed	13,000
1982	Season Closed	20,500
1983	Season Closed	32,000
1984	Season Closed	25,000
1985	2,500	34,500
1986	4,000	40,000

^aAll figures are reported for the calendar year and rounded to the nearest 500.

Table 3. Estimated angler participation and harvest in the Little Salmon River chinook salmon fishery, 1986.

	ESTIMATE	UPPER CONFIDENCE INTERVAL	LOWER CONFIDENCE INTERVAL
Number of anglers:	2458	2547	2366
Resident:	2287	2321	2040
Non-resident:	171	211	137
Number of days fished:	9355	9889	8820
Resident:	8809	9342	8276
Non-resident:	546	611	480
Number anglers that caught:	1075	1146	1003
Resident:	986	1010	956
Non-resident:	89	118	64
Number did not catch:	1383	1456	1311
Resident:	1301	1324	1271
Non-resident:	82	111	59
Number of fish released:	1370	1766	974
Resident:	1253	1644	862
Non-resident:	117	170	
Number of fish kept:	2976	3125	2826
Resident:	2760	2906	2614
Non-resident:	216	251	181

Table 4. Estimated angler participation and harvest in the Snake River chinook salmon fishery, 1986.

	ESTIMATE	UPPER CONFIDENCE INTERVAL	LOWER CONFIDENCE INTERVAL
Number of anglers:	40	63	
Residents:	26	34	16
Non-residents:	14	23	
Number of days fished:	132	194	
Resident:	58	82	
Non-resident:	74	133	
Number anglers that caught:	21	30	
Resident:	16	20	
Non-resident:	5	12	
Number did not catch:	18	27	
Resident:	10	15	
Non-resident:	8	14	
Number of fish released:	10		
Resident:	0		
Non-resident:	10		
Number of fish kept:	26	34	19
Resident:	18	26	
Non-resident:	8	15	

Table 5. Estimated angler participation and harvest in the panther Creek chinook salmon fishery, 1986.

	ESTIMATE	UPPER CONFIDENCE INTERVAL	LOWER CONFIDENCE INTERVAL
Number of anglers:	1256	1347	1167
Resident:	1081	1115	1042
Non-resident:	175	213	141
Number of days fished:	3551	3829	3273
Resident:	3146	3417	2874
Non-resident:	405	467	345
Number anglers that caught:	389	438	342
Resident:	323	343	298
Non-resident:	66	90	46
Number did not catch:	867	913	817
Resident:	758	784	726
Non-resident:	109	140	82
Number of fish released:	359	698	
Resident:	303		
Non-resident:	56		
Number of fish kept:	834	904	764
Resident:	692	757	628
Non-resident:	142	169	115

Steelhead

Steelhead fishing seasons in 1986 were open on most waters from January 1 through April 30 and from August 30 through December 31. Daily bag limits allowed from 1 to 3 fish/day, up to 10 fish in possession and 10 to 20 fish/season (Figures 4 and 5).

In 1986, anglers were required to release wild steelhead, as determined by a dorsal fin height or the presence of an adipose fin.

A total of 42,401 steelhead permits were sold in 1986. The total estimated harvest of steelhead for the spring and fall seasons combined was 39,893, the highest on record (Tables 6 and 2). The 1986 harvest was comprised of fish from the 1985-1986 fish run in the spring fishing season, and of fish from the 1986-1987 fish run in the fall. The fall fishery was by far the most important in terms of harvest (Table 7). The 1985-1986 run provided the largest harvest of recent years (Table 8).

Among the major drainages, the Salmon River received the most fishing pressure (127,558 *days*) during the year (Table 9). The greatest total harvest of steelhead (23,386) in 1986 occurred in the Salmon River drainage (Table 7), which is the opposite in terms of harvest of what occurred in 1985. The most fish harvested in 1985 were from the Clearwater drainage (Hall-Griswold and Cochnauer, 1986).

In 1986, regulations for steelhead fishing encouraged or required the release of wild steelhead. Anglers released 49,650 (13,810 hatchery fish and 35,840 wild fish) (Table 10) while harvesting 39,893 (Table 7). These results follow the same general pattern of releasing more fish than harvesting. A total of 38,180 of these fish were released in the fall, and this number is probably the result of a record run of 123,363 steelhead crossing Lower Granite Dam in the fall of 1986 and having a catch-and-release season on the Clearwater River until October 15.

STEELHEAD TROUT

-CAN YOU TELL THE DIFFERENCE?



Hatchery Fish

Some hatchery-produced steelhead can now be identified by their missing adipose fin, as evidenced by a healed scar. SUCH FISH MAY BE RETAINED, REGARDLESS OF DORSAL FIN HEIGHT. On some hatchery steelhead, however, the shape of the dorsal fin is the identifying mark.



DORSAL FIN RAYS bent, or crooked. Other fins may also contain crooked rays, or have "clipped" appearance.



DORSAL FIN RAYS not bent or crooked, generally more than 2 1/4 inches high when fully extended. All other fins with straight, branched fin rays. THESE ARE WILD FISH AND MUST BE RELEASED UNHARMED IMMEDIATELY.

IS YOUR STEELHEAD MISSING A LEFT VENTRAL FIN?
If it is... **SAVE THE HEAD**
Here's why:

The missing left ventral fin signals the presence of a small coded wire tag implanted in the nose cartilage of the fish. The tag is used in a variety of experiments designed to perpetuate the runs of steelhead into Idaho. Each tag assumes a great deal of importance. If your fish is missing the left ventral fin, remove the fish's head and return it to a local conservation officer or Fish and Game office (or freeze it until you can turn it in).



NOTE: Daily bag and possession limits for the Snake, Salmon, Clearwater and Boise rivers shall not be construed as cumulative limits. An angler may take a total of 20 steelhead during the spring 1986 season, provided that the bag, possession, or season limits on any individual river section are not exceeded.

ETHICS AND COURTESY

Improved steelhead runs to Idaho have caused tremendous increases in numbers of anglers. This increase in anglers has created litter problems and conflicts between anglers. Your help is needed to assure that you and other anglers have an enjoyable fishing trip.

PLEASE:

Do not litter. Place lure and bait packages, beverage containers and other trash in proper receptacles or carry it out with you. Use sanitary facilities wherever possible.

Avoid conflicts with other anglers. If someone else is fishing a hole, wait your turn. Boat anglers should avoid crowding bank anglers or crossing lines. Bank anglers should recognize that often boats must pass through narrow slots close to shore. Try not to restrict their passage. Power boats should avoid floatboats and wading anglers and be aware of the impacts of speed, noise and wakes.

STEELHEAD HARVEST SURVEY

Steelhead harvest and angler participation are estimated by a telephone survey conducted within a few weeks after the season closes. You may be called and asked about your effort and success. Please save your permit until 3 months after the season has closed or until you are contacted by an Idaho Fish and Game caller.



IDAHO 1986 SPRING Steelhead Seasons and Regulations — SEASONS AND LIMITS —

The following waters are open to fishing for steelhead during the periods listed. Waters not specifically designated below shall remain CLOSED to fishing for steelhead.

SALMON RIVER — From its mouth upstream to Mackay Bar pack bridge - January 1 through March 15. STEELHEAD LIMIT is 2 per day, 4 in possession, and 10 per season.

— From Mackay Bar pack bridge to Long Tom Creek - January 1 through March 31. STEELHEAD LIMIT - 2 per day, 4 in possession, and 10 per season.

— From Long Tom Creek to a posted line 100 yards upstream from the mouth of the Pahsimeroi River - January 1 through April 30. STEELHEAD LIMIT - 3 per day, 9 in possession, and 20 per season.

— From 100 yards upstream from the mouth of the Pahsimeroi River upstream to the mouth of Redfish Lake Creek - January 1 through April 30. STEELHEAD LIMIT - 2 per day, 4 in possession, and 10 per season.

SPECIAL LIMIT AND GEAR REGULATIONS — From the mouth of the Salmon River upstream to Deer Creek Bridge near Whitebird, only steelhead with dorsal fins measuring 2 inches or less in height may be reduced to possession. From Deer Creek Bridge upstream only steelhead with dorsal fins measuring 2 1/4 inches or less in height may be reduced to possession. Steelhead with dorsal fins measuring in excess of these limits must always be immediately released unharmed. It shall be unlawful to fish for steelhead in the Salmon River with a barbed hook. Bending the barb down to the shank of a single, double, or treble hook is sufficient to meet this gear restriction.

It shall be unlawful to possess any steelhead with a freshly cut or mutilated dorsal fin in this area.

Steelhead are the only game fish which may be retained in possession between Horse Creek and North Fork on the Salmon River during the steelhead season.

SNAKE RIVER — From Washington state line at the confluence of the Snake and Clearwater rivers upstream to Redbird Creek (approximately 16 miles upstream from Lewiston) - January 1 through April 30. STEELHEAD LIMIT - 2 per day, 4 in possession, and 10 per season.

— From Redbird Creek upstream to Wild Sheep Rapids (approximately 6 miles downstream from Hells Canyon Dam) - January 1 through March 31. STEELHEAD LIMIT - 2 per day, 4 in possession, and 10 per season.

SPECIAL LIMIT AND GEAR RESTRICTIONS - Only steelhead with dorsal fins measuring 2 inches or less in height may be reduced to possession from the Snake River between Redbird Creek (16 miles upstream from Lewiston on the Idaho shore) and Wild Sheep Rapids (6 miles downstream from Hells Canyon Dam). It shall be unlawful to fish for steelhead with a barbed hook in waters where the 2 inch dorsal height restriction applies. Bending the barb down to the shank of a single, double, or treble hook is sufficient to meet this gear restriction.

It shall be unlawful to possess any steelhead with a freshly cut or mutilated dorsal fin.

It shall be unlawful to fish for steelhead from a boat for 150 yards immediately downstream from Hells Canyon Dam.

— From Wild Sheep Rapids upstream to Hells Canyon Dam - January 1 through April 30. STEELHEAD LIMIT - 3 per day, 9 in possession, and 20 per season.

— From Hells Canyon Dam upstream to Oxbow Dam - January 1 through April 30. STEELHEAD LIMIT - 2 per day, 4 in possession, and 10 per season.

CLEARWATER RIVER — From the posted boundary at the confluence with the Snake River upstream to the Clearwater River Bridge at Orofino - January 1 through April 30, EXCEPT that fishing from the shoreline along the perimeter of Dworshak National Fish Hatchery is CLOSED FOR ALL SPECIES. STEELHEAD LIMIT - 2 per day, 4 in possession, and 10 per season.

— From the Clearwater River Bridge at Orofino upstream to a posted line at the mouth of the South Fork Clearwater River - January 1 through April 15. Fishing from a raft or boat with motor attached is prohibited. STEELHEAD LIMIT - 1 per day, 1 in possession, and 3 per season.

CLEARWATER RIVER NORTH FORK — From the mouth upstream to 100 yards below Dworshak Dam - January 1 through April 30 EXCEPT that fishing from the shoreline along the perimeter of Dworshak National Fish Hatchery is CLOSED FOR ALL SPECIES and fishing from a boat is prohibited between a posted line 150 yards upstream from the mouth and Ahsahka Highway Bridge. STEELHEAD LIMIT - 2 per day, 4 in possession, and 10 per season.

CLEARWATER RIVER, SOUTH FORK — From the mouth upstream to the confluence of the American and Red rivers - January 1 through April 15. STEELHEAD LIMIT - 2 per day, 4 in possession, and 10 per season.

BOISE RIVER — From its mouth upstream to Barber Dam - January 1 through April 30. Rainbow trout over 20 inches are classified as steelhead, and must be entered on a steelhead permit immediately after being reduced to possession. STEELHEAD LIMIT - 2 per day, 4 in possession, and 10 per season.

Figure 4. Idaho 1986 spring steelhead seasons and regulations.

IDAHO DEPARTMENT OF FISH AND GAME

JERRY M. CONLEY, DIRECTOR
600 S. Walnut St. Phone 334-3700
P.O. Box 25 Boise, Idaho 83707

Resident Fishing License \$10.50
Nonresident Fishing License \$30.50
Steelhead Permit (Lic. Required) \$2.50

GENERAL INFORMATION

LICENSES, PERMITS — GENERAL

Anyone, except those expressly exempt, must have a valid fishing license and steelhead permit to fish for steelhead.

Children (including nonresident children) under the age of 14 are exempt from purchasing steelhead permits. They may fish without permits if they are accompanied by a valid permit holder, provided that any fish caught must be recorded on the permit holder's card and counted in the permit holder's legal bag and possession limit.

A resident child under 14 may purchase a permit so that he may catch his or her own limit of steelhead. Any person who does not qualify as a resident must have a nonresident season fishing license before purchasing a steelhead permit.

In order to qualify for resident status, a person must be domiciled in the State for at least six months.

— FISHING IN BOUNDARY WATERS —

SNAKE RIVER BETWEEN IDAHO AND OREGON OR WASHINGTON: The holder of a valid Idaho fishing license may fish the Snake River where it forms the boundary between the states of Idaho and Oregon or Washington, subject to the fish and game laws of Idaho but may not fish from the shoreline, sloughs or tributaries on the Oregon or Washington side. An Oregon or Washington license holder has the same rights and restrictions with reference to the Idaho side.

Any angler who fishes on the Snake River or any other water forming an Idaho boundary is entitled to only one daily bag limit per day regardless of the number of licenses he may possess.

IDAHO FISHING SEASONS AND REGULATIONS FOR STEELHEAD TROUT

Spring 1986

13.03.018.1 - 1986 Spring Steelhead Regulations

— AUTHORIZATION —

In accordance with Sections 36-104(b), 36-410, 36-901, Idaho Code, it is ordered that the following regulations for the taking of steelhead trout in the State of Idaho are hereby declared to be effective January 1, 1986 through April 30, 1986.

STEELHEAD - Steelhead are defined as rainbow trout over 20 inches in length taken from the Snake River drainage below Oxbow Dam, the Salmon River drainage, the Boise River from its mouth upstream to Barber Dam and the Clearwater River drainage, excluding lakes and the North Fork of the Clearwater River above Dworshak Dam.

STEELHEAD FISHING PERMITS - An angler fishing for or taking steelhead trout must have a steelhead permit in possession. However, when a steelhead is released unharmed, as in catch-and-release fishing, the angler is not required to make an entry on the permit.

STEELHEAD PERMIT VALIDATION - When a steelhead trout over 20" has been hooked, landed, and reduced to possession, the angler must immediately:

- Completely remove one numbered notch from the permit, and
- Look up the number code from the location code list and write it in the space provided, and
- Enter the month and day the fish was caught.

For example, a fish caught from the Salmon River between the Middle Fork and North Forks on October 22 would be entered as:

Fish	Month/Day	Location Code
1	4/22	15

REMOVE NOTCH

DRESSED FISH - It shall be unlawful to have in the field or in transit any steelhead trout from which the head or tail has been removed.

SNAGGING: It is unlawful to kill or retain in possession any steelhead which has been hooked other than in the head, and any steelhead hooked other than in the head must be immediately released. Steelhead caught in a legal manner must be either released or killed immediately after landing.

SPECIAL REGULATIONS - It shall be unlawful to fish in any waters while having fish in possession which violate regulations for those waters.

FISHING PROHIBITED AFTER ATTAINMENT OF LIMITS - It is unlawful to continue to fish for steelhead after a person has caught and reduced to possession the daily bag, possession, or season limit.

POSSESSION AND OWNERSHIP - All fish that are hooked, landed, and not immediately released shall be counted in the limits of the person hooking the fish.

REQUIREMENTS OF CATCH-AND-RELEASE FISHING - All steelhead caught in catch-and-release waters must be released immediately, unharmed, back to the water.

TO RELEASE FISH UNHARMED:

- Do not squeeze the fish.
- Do not touch the gills or hold fish by gill covers.
- Leave the fish in the water while removing the hook. If the hook cannot be easily removed, cut the leader and release the fish.
- If the fish is exhausted, hold it in an upright position in the water and gently move it back and forth until it is able to swim away.

Using these precautions will permit the fish to survive for another day.



Barbless hooks are usually not difficult to remove from fish. Barb (1) is easily bent down (2) by moderate pressure applied with pliers.

IT IS UNLAWFUL

The following acts are unlawful by statute. They are listed here for your information. Please consult Title 36, Idaho Code, for exact wording and complete listing.

IT IS UNLAWFUL:

To refuse to produce license or fish for inspection upon request of a conservation officer.

To fail to stop and report at checking stations that have been established to inspect licenses and fish and game.

To fish for trout with the aid of artificial light.

To put any substance not attached to a hook into the water for the purpose of attracting fish (chumming).

To possess, transport or use as bait any live fish, EXCEPT as provided by Commission regulation.

To catch any part of another person's bag limit, EXCEPT in the case of license-exempt persons fishing for salmon and steelhead.

To transport for another or accept as a gift any game fish unless a statement signed by taker accompanies the fish, showing the number and kinds, the date taken, the taker's name, address and fishing license number.

To claim ownership to more wild game or fish taken within the State of Idaho than allowed by established possession limits.

To ship any fish by commercial carrier unless the outside of the package is marked as to the number and kinds of fish and the package contains a written statement showing the taker's name, address and fishing license number.

To use seines, dip nets, spears, snag hooks, or any other contrivances in taking any fish from the waters of the State EXCEPT as allowed by Commission regulation.

To deposit chemicals, poisons or explosives in attempting to catch or destroy fish.

To waste game fish.

To sell fish without a permit.

To destroy or disturb traps, or remove wildlife from traps.

Consult the General Fishing Regulations for other regulations relating to all fishing.

RIVER LOCATION CODES

SNAKE RIVER, below Salmon River	01	SALMON RIVER, South Fork to Middle Fork	14
SNAKE RIVER, above Salmon River	02	SALMON RIVER, Middle Fork to North Fork	15
CLEARWATER RIVER, below Orofino Bridge	03	SALMON RIVER, North Fork to Lemhi River	16
CLEARWATER RIVER, above Orofino Bridge	04	SALMON RIVER, Lemhi River to Pahsimeroi River	17
NORTH FORK CLEARWATER RIVER	05	SALMON RIVER, Pahsimeroi River to East Fork	18
MIDDLE FORK CLEARWATER RIVER	06	SALMON RIVER, above the East Fork	19
SOUTH FORK CLEARWATER RIVER	07	LITTLE SALMON RIVER	20
SELWAY RIVER	08	NORTH FORK SALMON RIVER	21
LOCHSA RIVER	09	LEMHI RIVER	22
SALMON RIVER, below Whitebird Creek	10	PAHSIMEROI RIVER	23
SALMON RIVER, Whitebird Creek to Little Salmon	11	EAST FORK SALMON RIVER	24
SALMON RIVER, Little Salmon to Vinegar Creek	12	SNAKE RIVER, Oxbow	25
SALMON RIVER, Vinegar Creek to South Fork	13	BOISE RIVER	26

PERMIT VALIDATION

When a steelhead trout has been hooked, landed, and reduced to possession, the angler must immediately

- Completely remove one numbered notch from the permit;
- Look up the number code from the location code list and write it in the space provided; and,
- Enter the month and day the fish was caught.

For example, a fish caught from the Salmon River between the Middle and North Forks on October 22 would be entered as:

Fish	Month/Day	Location Code
1	10/22	15

REMOVE NOTCH

However, when a steelhead is released unharmed, as in catch-and-release fishing, the angler is not required to make an entry on the permit.

STEELHEAD HARVEST SURVEY

Steelhead harvest and angler participation are estimated by a telephone survey conducted within a few weeks after the season closes. You may be called and asked about your effort and success. Please save your permit until 3 months after the season has closed or until you are contacted by an Idaho Fish and Game caller.

SALMON RIVER BOATING PERMITS

Permits for boating the Salmon River between Corn Creek and Long Tom Bar from June 20 through September 7 are required. Contact the U.S. Forest Service, State Creek Ranger Station, for permit information — telephone: 839-2211.

RIVER LOCATION CODES

Snake River, below Salmon River	01
Snake River, above Salmon River	02
Clearwater River, below Orofino Bridge	03
Clearwater River, above Orofino Bridge	04
North Fork Clearwater River	05
Middle Fork Clearwater River	06
South Fork Clearwater River	07
Selway River	08
Lochsa River	09
Salmon River, below Whitebird Creek	10
Salmon River, Whitebird Creek to Little Salmon	11
Salmon River, Little Salmon to Vinegar Creek	12
Salmon River, Vinegar Creek to South Fork	13
Salmon River, South Fork to Middle Fork	14
Salmon River, Middle Fork to North Fork	15
Salmon River, North Fork to Lemhi River	16
Salmon River, Lemhi River to Pahsimeroi River	17
Salmon River, Pahsimeroi River to East Fork	18
Salmon River, above the East Fork	19
Little Salmon River	20
South Fork Salmon River	21
Middle Fork Salmon River	22
North Fork Salmon River	23
Lemhi River	24
Pahsimeroi River	25
East Fork Salmon River	26
Snake River, Oxbow	27
Boise River	28

ETHICS AND COURTESY

Improved steelhead runs to Idaho have caused tremendous increases in numbers of anglers. This increase in anglers has created litter problems and conflicts between anglers. Your help is needed to assure that you and other anglers have an enjoyable fishing trip.

PLEASE:

Do not litter. Place lure and bait packages, beverage containers and other trash in proper receptacles or carry it out with you. Use sanitary facilities wherever possible.

Avoid conflicts with other anglers. If someone else is fishing a hole, wait your turn. Boat anglers should avoid crowding bank anglers or crossing lines. Bank anglers should recognize that often boats must pass through narrow slots close to shore. Try not to restrict their passage. Power boats should avoid floatboats and wading anglers and be aware of the impacts of speed, noise and wakes.

Littering, trespass and human wastes are leading to loss of fishing access. Conflicts between anglers may lead to restrictions on fishing methods. Protect your fishing and help assure that everyone has an enjoyable experience by practicing courtesy.

IDAHO DEPARTMENT OF FISH AND GAME

JERRY M. CONLEY, DIRECTOR
600 S. Walnut St. Phone 334-3700
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IDAHO 1986 FALL



Steelhead Seasons and Regulations

Resident Fishing License \$10.50
Nonresident Fishing License \$35.50
Steelhead Permit (Lic. Required) \$2.50

GENERAL INFORMATION

LICENSES — STEELHEAD PERMITS

Anyone, except those expressly exempt, must have a valid fishing license and steelhead permit to fish for, reduce to possession, or catch and release steelhead.

Children (including nonresident children) under the age of 14 are exempt from purchasing steelhead permits. They may fish without permits if they are accompanied by a valid permit holder, provided that any fish caught must be recorded on the permit holder's card and counted in the permit holder's legal bag and possession limit.

A resident child under 14 may purchase a permit so that he may catch his or her own limit of steelhead. Any person who does not qualify as a resident must have a nonresident season fishing license before purchasing a steelhead permit.

In order to qualify for resident status, a person must be domiciled in the State for at least six months.

FISHING IN BOUNDARY WATERS

SNAKE RIVER BETWEEN IDAHO AND OREGON OR WASHINGTON: The holder of a valid Idaho fishing license may fish the Snake River where it forms the boundary between the states of Idaho and Oregon or Washington, subject to the fish and game laws of Idaho but may not fish from the shoreline, sloughs or tributaries on the Oregon or Washington side. An Oregon or Washington license holder has the same rights and restrictions with reference to the Idaho side.

Any angler who fishes on the Snake River or any other water forming an Idaho boundary is entitled to only one daily bag limit per day regardless of the number of licenses he may possess.

Figure 5. Idaho 1986 fall steelhead seasons and regulations.

SEASONS AND LIMITS

- Daily bag, possession, and season limits for the Snake, Salmon and Clearwater rivers shall not be construed as cumulative limits. For example, an angler may take a total of 20 steelhead during the 1986 season. However, only 10 of those fish may be taken from the Clearwater River.

SALMON RIVER from its mouth upstream to Redfish Lake Creek.

Season: August 30, 1986 through December 31, 1986.

Limits: 3 per day
9 in possession
20 per season

Special Restrictions: Steelhead are the only game fish that may be reduced to possession between Horse Creek and the North Fork of the Salmon River during the steelhead season.

SNAKE RIVER from the Washington state line at the confluence of the Snake and Clearwater rivers to Hells Canyon Dam including the Clearwater River from its mouth to the Memorial Bridge of U.S. Highway 12 at Lewiston.

Season: August 30, 1986 through December 31, 1986.

Limits: 3 per day
9 in possession
20 per season

Special Restrictions: Fishing from a boat within 150 yards of Hells Canyon Dam is prohibited.

CLEARWATER RIVER from the Memorial bridge of U.S. Highway 12 at Lewiston upstream to the Clearwater River Bridge at Orofino, **South Fork** of the Clearwater River from its mouth upstream to Hungry Ridge Road Bridge on State Highway 14 near mile post 16, and, the **North Fork** of the Clearwater River from its mouth upstream to 100 yards below Dworshak Dam.

Season: October 15, 1986 through December 31, 1986.

Limits: 2 per day
4 in possession
10 per season

Special Restrictions:

- Fishing from the shoreline along the perimeter of Dworshak National Fish Hatchery is prohibited.
- Fishing from motorized watercraft is PROHIBITED from the Clearwater River bridge at Orofino upstream to the posted line at the mouth of the South Fork of the Clearwater River.

- Fishing from any watercraft is PROHIBITED between the mouth of the North Fork of the Clearwater River and the Ahsanka Highway Bridge.

IDENTIFICATION OF SPECIES IN POSSESSION AND DURING TRANSPORTATION OR SHIPMENT

No person shall have in the field or in transit any steelhead trout from which the head or tail has been removed.

STEELHEAD

"Steelhead" are defined as rainbow trout over 20 inches in length taken from the Snake River drainage below Hells Canyon Dam, the Salmon River drainage, and the Clearwater River drainage excluding lakes, and the North Fork of the Clearwater River above Dworshak Dam.

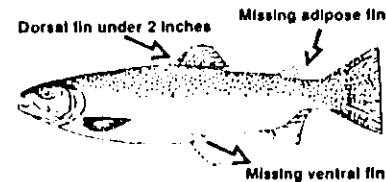
METHODS OF TAKE

- No person shall kill or retain in possession any steelhead which has been hooked other than in the head. Any steelhead hooked other than in the head must be released unharmed.
- Steelhead caught in a legal manner must be either released or killed immediately after landing.
- Steelhead may be taken only with a barbless hook. Bending the barb down to the shank of a single, double, or treble hook will meet this requirement.
- All fish that are hooked, landed, and not immediately released shall be counted in the limits of the person taking the fish.
- Only steelhead which have been marked by clipping the adipose fin, as evidenced by a HEALED scar may be reduced to possession EXCEPT, in the Snake River from the Idaho-Washington state line upstream to the Oregon-Washington state line, including the Clearwater River from its mouth to the Memorial Bridge of U.S. Highway 12 at Lewiston, steelhead EITHER with dorsal fins measuring 2 inches or LESS in height OR marked by clipping the ventral fin as evidenced by a HEALED scar may also be reduced to possession.

ANGLERS

WHICH STEELHEAD CAN YOU KEEP?

SNAKE RIVER — On the Snake River from the Idaho-Washington border upstream to the Oregon-Washington border, you may keep steelhead with either a missing adipose fin (as evidenced by a healed scar), or a dorsal fin less than 2 inches high when fully extended, or a missing ventral fin. (As evidenced by a healed scar).



REMAINDER OF STATE — Only steelhead with a missing adipose fin (as evidenced by a healed scar) may be kept.



IS YOUR STEELHEAD MISSING A LEFT VENTRAL FIN?

If it is...SAVE THE HEAD — here's why:

The missing left ventral fin signals the presence of a small coded wire tag implanted in the nose cartilage of the fish. The tag is used in a variety of experiments designed to perpetuate the runs of steelhead into Idaho. Each tag assumes a great deal of importance. If your fish is missing the left ventral fin, remove the fish's head and return it to a local conservation officer or Fish and Game office (or freeze it until you can turn it in).



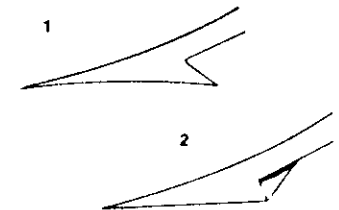
CATCH-AND-RELEASE

- Any person may fish for steelhead on a catch-and-release basis in any water open to fishing for other species EXCEPT in the Middle and South Forks of the Salmon River and their tributaries. Only artificial lures or flies with SINGLE barbless hooks are permitted when fishing on a catch-and-release basis. All steelhead caught in catch-and-release waters shall be released unharmed immediately. However, once an angler has attained his bag, possession or season limit on those waters with steelhead limits he must cease fishing for steelhead including catch-and-release fishing.

TO RELEASE FISH UNHARMED:

1. Do not squeeze the fish.
2. Do not touch the gills or hold fish by gill covers.
3. Leave the fish in the water while removing the hook.
4. Use long-nosed pliers to rotate the hook from the fish's mouth. If the hook cannot be easily removed, cut the leader and release the fish.
5. If the fish is exhausted, hold it in an upright position in the water and gently move it back and forth until it is able to swim away.

Using these precautions will permit the fish to survive for another day.



Barbless hooks are usually not difficult to remove from fish. Barb (1) is easily bent down (2) by moderate pressure applied with pliers.

(Figure 5. Continued)

Table 6. Estimated number of days fished, and number of steelhead kept or released during Idaho's 1986 spring and fall steelhead season.

	Spring season	Fall season	Total
Number of days fished	76,339	162,799	239,138
Number of steelhead caught and released	11,470	38,180	49,650
Number of steelhead caught and kept	11,699	28,194	39,893

Table 7. Estimated harvest of steelhead by month from sections of Idaho rivers, 1986.

Section	Spring season				Spring total	Fall season				Fall total	Year total
	Jan.	Feb.	Mar.	Apr.		Sept.	Oct.	Nov.	Dec.		
1	301	213	22	0	536	99	1,323	862	276	2,560	3,096
2	<u>114</u>	<u>122</u>	<u>10</u>	<u>10</u>	<u>256</u>	<u>103</u>	<u>547</u>	<u>345</u>	<u>138</u>	<u>1,133</u>	<u>1,389</u>
SNAKE TOTAL	415	335	32	10	792	202	1,870	1,207	414	3,693	4,485
3	542	653	771	157	2,123	86	3,137	2,107	1,138	6,468	8,591
4	35	14	35	47	131	39	392	250	108	789	920
5	14	102	455	134	705	34	332	349	164	879	1,584
6	0	0	0	0	0	0	9	13	9	31	31
7	0	0	126	104	230	0	4	13	0	17	247
8	0	0	0	0	0	0	4	0	0	4	4
9	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>4</u>	<u>4</u>
CLEARWATER TOTAL	591	769	1,387	442	3,189	159	3,878	2,736	1,419	8,192	11,381
10	74	47	33	0	154	366	1,194	478	112	2,150	2,304
11	109	47	35	35	226	82	694	414	121	1,311	1,537
12	88	7	0	0	95	30	392	409	112	943	1,038
13	0	0	7	0	7	4	353	194	13	564	571
14	62	59	130	42	293	95	1,142	1,090	60	2,387	2,680
15	246	254	1,221	149	1,870	297	3,952	2,228	99	6,576	8,446
16	7	76	255	83	421	99	875	440	56	1,470	1,891
17	49	123	1,681	429	2,282	0	211	194	39	444	2,726
18	7	0	218	164	389	4	26	34	0	64	453
19	14	49	723	801	1,587	17	22	17	4	60	1,647
20	<u>0</u>	<u>0</u>	<u>14</u>	<u>79</u>	<u>93</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>93</u>
SALMON TOTAL	656	662	4,317	1,782	7,417	994	8,861	5,498	616	15,969	23,386
27	0	0	0	0	0	4	0	4	0	8	8
28	<u>127</u>	<u>52</u>	<u>0</u>	<u>14</u>	<u>193</u>	<u>4</u>	<u>103</u>	<u>99</u>	<u>43</u>	<u>249</u>	<u>442</u>
STATEWIDE TOTALS	1,789	1,818	5,736	2,248	11,699	1,363	14,712	9,544	2,492	28,194	39,893 ^a

^aThere were 191 more fish caught, in which the section or the month was unknown (128 were in the spring and 83 were in the fall).

Table 8. Estimated steelhead harvest by fish run year, 1976 to 1985. (The fish run year is calculated from June 1 to May 31.) (CS = closed season and NA = no data available.)

Stream or section	Fish run year										
	76-77	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87
Salmon-1	627	837	CS	340	663	1,281	1,583	1,457	1,350	1,454	2,588
Salmon-2	353	1,039	CS	257	512	879	962	910	730	910	1,638
Salmon-3	354	1,055	CS	342	1,339	1,715	1,004	877	470	1,704	2,134
Salmon-4	710	1,718	CS	548	1,348	1,781	1,656	1,863	888	1,697	3,315
Salmon-5	711	2,886	162	1,024	2,670	3,165	5,991	9,586	2,327	7,569	11,656
Salmon-6	91	130	136	124	679	600	1,591	2,822	407	2,680	2,662
Salmon-7	25	12	CS	8	25	41	156	621	48	389	614
Salmon-8	12	40	CS	CS	CS	CS	305	629	108	1,601	1,573
Salmon-unknown	NA	NA	12	168	230	303	NA	NA	NA	NA	NA
SALMON TOTAL	2,883	7,717	310	2,811	7,466	9,765	13,248	18,765	6,336	18,097	26,180
S. F. Salmon	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS
M. F. Salmon	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS
Other Salmon tribs.	CS	CS	CS	CS	CS	CS	CS	CS	CS	93 ^c	877 ^c
Lower Clearwater	CS	NA	1,921	CS	3,523	354	9,218	6,165	18,024	8,292	8,694
Upper Clearwater	CS	NA	253	CS	156	31	1,402	687	1,233	658	1,889
Clearwater-unknown	NA	NA	125	CS	217	12	0	0	NA	NA	NA
N. F. Clearwater	0	NA	484	CS	256	144	1,201	414	2,216	920	3,931
M. F. Clearwater	0	0	CS	CS	CS	CS	CS	CS	25	0	590
Other Clearwater tribs.	0	0	CS	CS	CS	CS	CS	CS	284 ^b	230	704
CLEARWATER TOTAL	0	14,157 ^a	2,783	CS	4,152	541	11,821	7,266	21,782	10,100	15,808
Lower Snake	96	NA	CS	17	358	484	1,535	1,024	3,319	2,417	3,050
Upper Snake	50	NA	CS	7	100	126	1,308	1,046	553	1,204	1,477
SNAKE TOTAL	146	NA	CS	24	458	610	2,843	2,070	3,872	3,621	4,527
Unknown streams	66	50	3	4	NA	NA	NA	NA	NA	767 ^d	508
STATE TOTALS	3,095	21,924	3,096	2,839	12,076	10,916	27,912	28,101	31,990	32,565	47,910

^aIncludes main stem Clearwater and North Fork Clearwater rivers.

^bSouth Fork Clearwater River.

^cLittle Salmon River.

^dBoise River.

Table 9. Estimated 1986 fishing pressure (number of anglers and angler days) for steelhead by river section, Idaho (NA = no data available).

River Section	SPRING		Fall		TOTAL Angler Days
	Number of Anglers	Number of Days	Number of Anglers	Number of Days	
1.	NA	4945	2819	17067	22012
2.	NA	1047	1440	6055	7102
SNAKE TOTAL	NA	5992	4259	23122	29114
3.	NA	16705	6878	41291	57996
4.	NA	1843	1030	4749	6592
5.	NA	4351	875	3818	8169
6.	NA	210	73	241	451
7.	NA	2671	43	353	3024
8.	NA	0	4	435	435
9.	NA	24	4	13	37
CLEARWATER TOTAL	NA	25804	8907	50900	76704
10.	NA	1995	2224	12731	14726
11.	NA	2480	2241	10184	12664
12.	NA	1617	1802	6008	7625
13.	NA	268	867	3491	3759
14.	NA	2177	1909	8951	11128
15.	NA	10948	5155	28094	39042
16.	NA	4276	2134	9361	13637
17.	NA	9237	806	3590	12827
18.	NA	2689	358	923	3612
19.	NA	6719	435	1203	7922
20.	NA	497	0	0	497
21.	NA	0	0	0	0
22.	NA	14	4	17	31
23.	NA	85	0	0	85
24.	NA	0	0	0	0
25.	NA	0	0	0	0
26.	NA	0	0	0	0
SALMON TOTAL	NA	43002	17935	84553	127558
OXBOW	NA	0	17	26	26
BOISE RIVER	NA	1499	569	3685	5184
UNKNOWN	NA	42	172	513	555
TOTALS	NA	76339	31859	162799	239138

Table 10. Estimate of steelhead released, Idaho steelhead fishery, 1986

RIVER SECTION	SPRING			FALL			CUMULATIVE TOTAL
	TOTAL WILD	TOTAL HATCHERY	TOTAL RELEASED	TOTAL WILD	TOTAL HATCHERY	TOTAL RELEASED	
1.	316	14	330	6214	1000	7214	7544
2.	59	36	95	1198	82	1280	1375
SNAKE RIVER TOTAL	375	50	425	7412	1082	8494	8919
3.	439	987	1426	6973	2422	9395	10821
4.	7	14	21	883	573	1456	1477
5.	107	240	347	677	439	1116	1463
6.	0	0	0	0	17	17	17
7.	100	80	180	22	0	22	202
8.	0	0	0	0	0	0	0
9.	0	0	0	4	0	4	4
CLEARWATER TOTAL	653	1321	1974	8559	3451	12010	13984
10.	252	7	259	3090	375	3465	3724
11.	454	49	503	1288	202	1490	1993
12.	281	83	364	634	43	677	1041
13.	21	0	21	811	99	910	931
14.	572	415	987	2073	608	2681	3668
15.	1015	735	1750	4137	1595	5732	7482
16.	265	430	695	918	349	1267	1962
17.	855	812	1667	612	353	965	2632
18.	79	243	322	43	47	90	412
19.	1101	1300	2401	228	78	306	2707
20.	21	7	28	0	0	0	28
21.	0	0	0	0	0	0	0
22.	0	0	0	0	0	0	0
23.	0	0	0	0	0	0	0
24.	0	0	0	0	0	0	0
25.	0	0	0	0	0	0	0
26.	0	0	0	0	0	0	0
SALMON TOTAL	4916	4081	8997	13834	3749	17583	26580
27.	0	0	0	0	0	0	0
28.	21	53	74	13	22	35	110
UNKNOWN	0	0	0	39	17	56	56
TOTAL	5965	5505	11470	29875	8305	38180	49650

Submitted by:

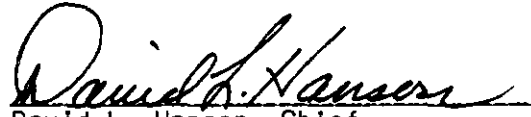
Tom McArthur
Fisheries Staff Biologist

Approved by:

IDAHO DEPARTMENT OF FISH AND GAME



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